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IS 10124-4 (2009): Fabricated PVC- U Fittings for Potable Water Supplies - Specification, Part 4: Specific Requirements for Caps [CED 50: Plastic Piping System]



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भारतीय मानक
पेय जल आपूर्ति के लिए सविरंचित
पी वी सी-यू फिटिंगें — विशिष्ट
भाग 4 कैपों की विशिष्ट अपेक्षाएँ
(दूसरा पुनरीक्षण)

Indian Standard
FABRICATED PVC-U FITTINGS FOR POTABLE WATER
SUPPLIES — SPECIFICATION
PART 4 SPECIFIC REQUIREMENTS FOR CAPS
(*Second Revision*)

ICS 23.040.45; 91.140.60

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Price Group 1

FOREWORD

This Indian Standard (Part 4) (Second Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Plastics Piping Systems Sectional Committee had been approved by the Civil Engineering Division Council.

This standard was first published in 1982 and revised in 1988. In this revision, sizes and classes of fittings have been aligned with IS 4985 : 2000 'Unplasticized PVC pipes for potable water supplies — Specification'.

The requirements of fabricated PVC-U fittings are covered in thirteen parts. The other parts in the series are:

- Part 1 General requirements
- Part 2 Specific requirements for sockets
- Part 3 Specific requirements for straight reducers
- Part 5 Specific requirements for equal tees
- Part 6 Specific requirements for flanged tail pieces with metallic flanges
- Part 7 Specific requirements for threaded adaptors
- Part 8 Specific requirements for 90° bends
- Part 9 Specific requirements for 60° bends
- Part 10 Specific requirements for 45° bends
- Part 11 Specific requirements for 30° bends
- Part 12 Specific requirements for 22 ½° bends
- Part 13 Specific requirements for 11 ¼° bends

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the results of a test or analysis, shall be rounded off in accordance with IS 2 : 1960 'Rules for rounding off numerical values (*revised*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

Indian Standard

FABRICATED PVC-U FITTINGS FOR POTABLE WATER SUPPLIES — SPECIFICATION

PART 4 SPECIFIC REQUIREMENTS FOR CAPS

(Second Revision)

1 SCOPE

This standard (Part 4) lays down the requirements for manufacture, dimensions and marking for fabricated PVC-U caps for potable water supplies.

2 REFERENCES

The standards listed below contain provisions, which, through reference in this text, constitute provisions of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision and parties to agreement based on this standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below:

<i>IS No.</i>	<i>Title</i>
4985:2000	Unplasticized PVC pipes for potable water supplies — Specification (<i>third revision</i>)
10124 (Part 1): 2009	Specification for fabricated PVC-U fittings for potable water supplies — Specification: Part 1 General requirements

3 REQUIREMENTS**3.1 General**

The general requirements for materials, sizes, tests, sampling and criteria for conformity shall conform to IS 10124 (Part 1).

3.2 Manufacture

3.2.1 Typical illustration of caps is given in Fig. 1.

3.2.2 *Dimensions*

The dimensions of caps shall comply with those given in Table 1 read with Fig. 1.

NOTE — For 0.25 MPa and 0.4 MPa pressure classes, caps should not be made from 0.25 MPa and 0.4 MPa pressure class pipes. For these caps made from 0.6 MPa pressure class should be used.

4 MARKING

4.1 Each end cap shall be clearly and indelibly marked with the following information:

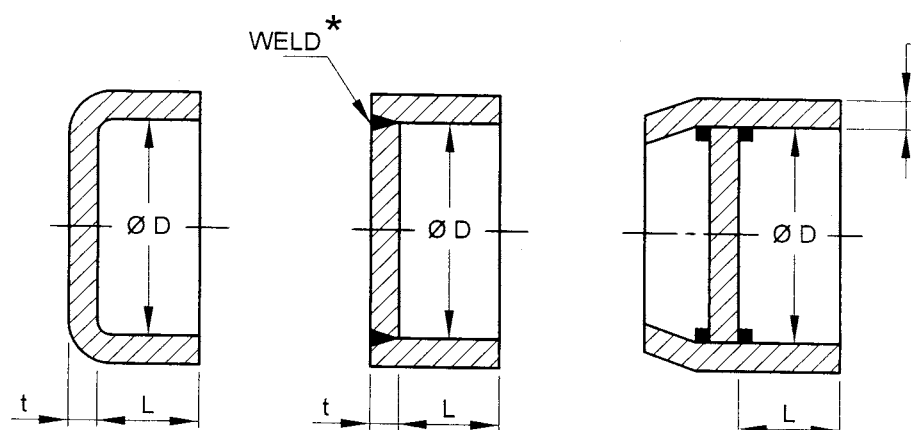
- a) Manufacture's name or identification mark,
- b) Size of the cap and the appropriate class (working pressure) of IS 4985 to which the pressure rating of the fitting corresponds, and
- c) The cap shall be marked in colour as indicated below for different classes of fittings:

<i>Class of the Fittings</i>	<i>Colour</i>
Class 3 (0.6 MPa)	Green
Class 4 (0.8 MPa)	Brown
Class 5 (1.0 MPa)	Yellow
Class 6 (1.25 MPa)	Black

4.2 BIS Certification Marking

Each Fitting may be also be marked with the Standard Mark.

4.2.1 The use of the Standard Mark is governed by the provisions of the *Bureau of Indian Standards Act*, 1986 and the Rules and Regulations made thereunder. The details of conditions under which a licence for the use of the Standard Mark may be granted to the manufacturer or producer may be obtained from the Bureau of Indian Standards.



D = mean socket internal diameter of mid-point of socket length as specified in IS 10124 (Part 1),

L = effective minimum socket length, and

t = minimum wall thickness of caps calculated on the basis of 90 percent of the minimum wall-thickness of the corresponding size and pressure class of the pipe, rounded off to the next higher 0.1 mm.

NOTE —The drawing are only intended to define the terms used in Table 1 and are not intended to illustrate specific design features.

*PVC welded by solvent or welding rod and with or without fibre glass reinforcement.

FIG. 1 CAPS

Table 1 Dimensions of Caps

(Clause 3.2.2, and Fig.1)

All dimensions in millimetres.

Sl No.	Nominal Size	Minimum Wall Thickness (t) for Working Pressure MPa			
		0.6 (Class 3)	0.8 (Class 4)	1.0 (Class 4)	1.25 (Class 5)
(1)	(2)	(3)	(4)	(5)	(6)
i)	63	2.0	2.5	3.2	3.8
ii)	75	2.4	3.1	3.8	4.6
iii)	90	2.8	3.6	4.5	5.5
iv)	110	3.4	4.4	5.5	6.7
v)	125	3.9	5.1	6.3	7.6
vi)	140	4.4	5.7	7.0	8.6
vii)	160	4.9	6.5	8.0	9.8
viii)	180	5.5	7.2	9.0	10.9
ix)	200	6.2	8.0	10.0	12.3
x)	225	6.9	9.0	11.2	13.8
xi)	250	7.7	10.0	12.5	15.3
xii)	280	8.6	11.3	13.9	17.1
xiii)	315	9.7	12.6	15.6	19.3
xiv)	355	10.8	14.3	17.7	21.7
xv)	400	12.2	16.1	19.8	24.5
xvi)	450	13.7	18.0	22.4	27.5
xvii)	500	15.3	20.1	24.8	30.5
xviii)	560	17.2	22.4	27.8	34.2
xix)	630	19.2	25.2	31.3	38.4

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Amendments Issued Since Publication

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